

CLAIMS

1. Coupling of the sort comprising at least one clamping jaw (11) capable of being mounted on a first element (2) to couple the latter to a second element (3) by clamping the second element (3) against the first element (2), the clamping or releasing of the second element (3) resulting from a translational movement following an axis (34), while the disengagement or capture of this second element is due to a rotational movement of the clamping jaw (11) about the same axis (34), the clamping jaw comprising a bore (18) having a threaded part (19) forming a nut (13) in which an actuation bolt (12) is engaged defining said axis (34) and able to drive the clamping jaw (11) in translation following the latter, characterized in that torque limitation means (25, 28) able to engage the actuation bolt (12) and the clamping jaw (11), using the bore (18) of this clamping jaw (11), allow transmission of the rotational movement of the actuation bolt (12) directly to the clamping jaw (11) and, consequently, the driving of this clamping jaw (11) in rotation about said axis (34).

2. Coupling according to claim 1, characterized in that the torque limitation means comprise at least one spring (26) capped by a pusher (27) at each of its longitudinal ends.

20 3. Coupling according to claim 1, characterized in that the torque limitation means are presented in the form of a coating of abrasive material covering the internal surface of the bore in contact with a clamping nut engaged on the actuation bolt or a part of the bolt itself, or vice-versa.

25 4. Coupling according to claim 1, characterized in that the torque limitation means are presented in the form of an element in a material having high frictional properties, in particular rubber, interposed between the actuation bolt or a clamping nut engaged on the latter and the internal surface of the bore of the clamping jaw.

30 5. Coupling according to claim 1, characterized in that the torque limitation means comprise teeth arranged symmetrically on the periphery of a clamping nut engaged on the actuation bolt or the bolt itself and which mesh with grooves machined in the bore of the clamping jaw, or vice-versa.

6. Coupling according to claim 1, characterized in that the torque limitation means are presented in the form of balls housed in a clamping nut engaged on the actuation bolt or in the bolt itself and forced into contact with the internal surface of the bore, preferably grooved, of the clamping jaw by at least 5 one spring, or vice-versa.

7. Coupling according to claim 1, characterized in that the torque limitation means result from the natural friction between the actuation bolt and the thread of the part forming a nut of the bore of the clamping jaw.

8. Coupling according to any one of claims 1 to 7, characterized in 10 that a rolling bearing, in particular a needle rolling bearing, is mounted on the actuation bolt and constitutes a stop for the end of translational travel for the clamping jaw.

9. Coupling according to any one of claims 1 to 8, characterized in 15 that the clamping jaw is guided in translation by a frame adapted to be fixed to the first element.

10. Coupling according to any one of claims 1 to 9, characterized in that the actuation bolt is driven by a motor, preferably a hydraulic motor, in particular using a meshing of toothed wheels.

11. Coupling according to any one of claims 1 to 10, characterized 20 in that the motor is a motor specific to the actuation bolt.

12. Coupling according to any one of claims 1 to 11, characterized in that the clamping jaw overall presents an L-shape, the threaded bore being installed in the longer branch of the L.

13. Loading arm, in particular for fluid products, comprising a 25 coupling according to any one of claims 1 to 12.